

POTOMAC RIVER BASIN

01658500 SOUTH FORK QUANTICO CREEK NEAR INDEPENDENT HILL, VA

LOCATION.--Lat 38°35'14", long 77°25'44", Prince William County, Hydrologic Unit 02070011, on left bank at upstream side of bridge on State Highway 619, 3.4 mi south of Independent Hill, 5.6 mi west of Dumfries, and 6.5 mi upstream from mouth.

DRAINAGE AREA.--7.64 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1951 to current year.

REVISED RECORDS.--WSP 2103: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 238.88 ft above sea level.

REMARKS.--No estimated daily discharges. Records good except for period Jan. 15 to Feb. 10, which is fair. No flow at times in 1954, 1957, 1962-66, 1983, 1985, 1987, 1988, 1991, 1993, 1998, and 1999.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr 17	1930	*283	*5.02				
Jun 27	2200	215	4.52	Aug 6	2030	279	4.99

Minimum discharge, 0.64 ft³/s, on several days, gage height, 1.35 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	2.6	1.5	1.7	3.1	6.1	4.0	4.2	3.2	2.6	4.1	2.5
2	3.1	9.9	1.4	1.7	2.6	4.9	3.7	3.7	3.1	2.0	2.4	2.6
3	2.1	6.4	1.3	1.8	2.5	4.1	3.9	3.4	5.8	1.6	2.5	8.8
4	2.1	2.3	1.3	14	2.6	3.7	5.2	3.0	2.9	2.1	8.2	5.7
5	2.7	1.7	1.3	18	2.8	3.5	4.7	2.9	2.8	2.0	4.0	1.7
6	2.0	1.5	1.6	5.0	2.8	3.2	4.0	3.0	4.3	1.6	53	1.1
7	1.6	1.4	2.0	3.5	3.1	3.0	3.6	2.5	4.1	1.3	20	1.0
8	1.5	1.3	1.6	2.9	4.1	3.0	11	2.4	1.9	1.2	5.3	.90
9	1.4	1.3	1.4	2.7	4.6	3.0	45	2.1	1.3	1.2	2.8	.83
10	2.4	1.3	5.4	7.3	8.0	2.9	8.9	2.1	1.2	1.2	2.0	.80
11	3.2	1.3	5.9	7.6	16	3.0	5.8	2.8	1.1	1.9	1.7	.74
12	2.2	1.3	2.9	4.0	12	4.1	5.0	2.4	1.0	1.3	1.3	.74
13	1.8	1.4	2.4	3.2	5.5	3.6	4.0	2.7	1.1	1.2	1.2	.72
14	1.8	1.2	67	2.6	6.5	3.1	3.8	5.3	1.2	1.3	1.3	.68
15	1.8	1.3	16	2.3	5.6	2.9	3.9	3.1	1.5	37	1.2	.68
16	1.8	1.3	6.3	2.4	3.8	3.0	4.4	3.0	4.6	3.3	1.0	.69
17	1.9	1.3	3.8	2.3	3.3	6.1	80	3.5	6.9	2.1	.93	.69
18	2.2	1.3	3.2	2.1	8.0	4.5	86	4.1	17	1.6	1.1	.69
19	2.4	1.2	2.7	2.2	16	3.6	27	4.9	16	1.5	1.1	2.7
20	3.3	1.3	2.7	2.4	7.1	3.4	11	6.9	3.7	6.9	.96	2.1
21	3.3	1.4	2.9	2.3	4.5	52	11	7.3	2.2	2.5	.86	1.0
22	2.5	1.5	2.9	2.1	3.6	31	12	14	4.8	1.7	.73	.80
23	2.4	1.5	2.6	2.1	3.3	11	6.8	8.3	2.7	1.5	.66	.70
24	2.2	1.5	2.3	2.2	3.1	6.9	5.2	6.7	1.8	1.5	.86	.69
25	2.1	1.6	2.0	2.9	3.0	5.9	38	6.4	1.5	1.7	.85	15
26	2.1	2.5	2.0	2.6	2.8	6.6	19	5.1	1.4	1.7	.71	61
27	2.1	12	2.0	2.3	3.4	6.3	12	4.2	23	1.8	.72	5.9
28	2.1	3.3	1.9	2.2	47	26	7.9	4.9	55	11	.93	2.2
29	2.1	2.1	1.9	2.2	9.6	8.2	6.1	5.4	10	21	1.0	1.4
30	2.1	1.6	1.8	2.6	---	5.5	4.9	4.4	4.2	3.5	1.0	1.1
31	2.2	---	1.8	3.3	---	4.5	---	3.3	---	3.4	1.4	---
TOTAL	73.7	71.6	155.8	116.5	200.3	238.6	447.8	138.0	191.3	126.2	125.81	126.15
MEAN	2.38	2.39	5.03	3.76	6.91	7.70	14.9	4.45	6.38	4.07	4.06	4.20
MAX	7.2	12	67	18	47	52	86	14	55	37	53	61
MIN	1.4	1.2	1.3	1.7	2.5	2.9	3.6	2.1	1.0	1.2	.66	.68
CFSM	.31	.31	.66	.49	.90	1.01	1.95	.58	.83	.53	.53	.55
IN.	.36	.35	.76	.57	.98	1.16	2.18	.67	.93	.61	.61	.61

01658500 SOUTH FORK QUANTICO CREEK NEAR INDEPENDENT HILL, VA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2000, BY WATER YEAR (WY)

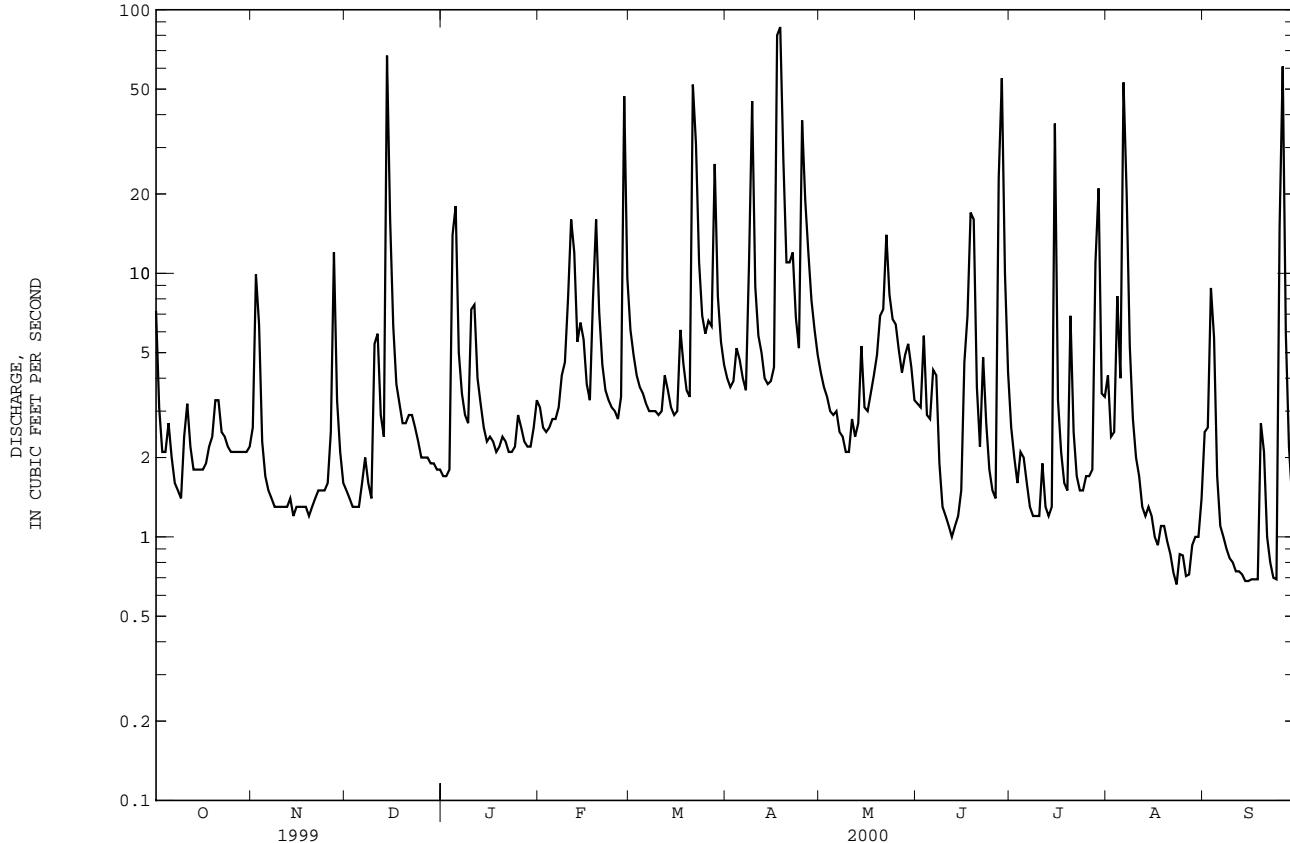
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.22	5.70	7.90	10.2	12.0	13.8	11.6	7.94	4.77	2.51	2.58	3.18
MAX	23.9	19.2	24.4	31.2	54.0	35.0	33.0	42.8	48.8	15.1	24.5	37.2
(WY)	1980	1953	1997	1996	1998	1994	1983	1989	1972	1975	1955	1975
MIN	.070	.23	.58	1.01	3.60	1.77	2.90	1.38	.23	.055	.010	.000
(WY)	1989	1999	1966	1981	1968	1981	1969	1999	1999	1963	1963	1964

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1951 - 2000
ANNUAL TOTAL	1443.53	2011.76	
ANNUAL MEAN	3.95	5.50	7.07
HIGHEST ANNUAL MEAN			13.5
LOWEST ANNUAL MEAN			2.55
HIGHEST DAILY MEAN	140 Sep 30	86 Apr 18	770 Jun 22 1972
LOWEST DAILY MEAN	.00 aAug 4	.66 Aug 23	.00 (c)
ANNUAL SEVEN-DAY MINIMUM	.00 Aug 4	.70 Sep 12	.00 (c)
INSTANTANEOUS PEAK FLOW		283 Apr 17	4160 May 6 1989
INSTANTANEOUS PEAK STAGE		5.02 Apr 17	11.62 May 6 1989
INSTANTANEOUS LOW FLOW		.64 bAug 22	.00 (c)
ANNUAL RUNOFF (CFSM)	.52	.72	.93
ANNUAL RUNOFF (INCHES)	7.03	9.80	12.57
10 PERCENT EXCEEDS	6.2	10	14
50 PERCENT EXCEEDS	1.7	2.7	2.7
90 PERCENT EXCEEDS	.11	1.2	.20

a Also nineteen other days in Aug. 1999.

b Also five other days in Aug. and Sept. 2000.

c No flow at times many years. See REMARKS.



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01658500 SOUTH FORK QUANTICO CREEK NEAR INDEPENDENT HILL, VA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951, 1953, 1955-56, 1969, 1973-75, 1983-85, 1994 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SAMPLE TYPE	BARO-	DIS-	OXYGEN,		PH	NITRO-				
			METRIC	CHARGE,	SPE- CIFIC	DIS- SOLVED	WATER	AMMONIA				
		TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)	PRES- SURE OF (HG)	CUBIC FEET SECOND (00025)	DUCT- ANCE (US/CM)	OXYGEN, (PER- CENT) (MG/L)	FIELD CENT (STAND- ARD UNITS)	DIS- SOLVED (MG/L AS N)			
		(00010)	(00020)	(00025)	(00061)	(00095)	(00300)	(00301)	(00400)	(00608)		
OCT 19...	0930	ENVIRONMENTAL	10.8	10.5	755	2.5	71	9.5	99	6.4	<.020	
NOV 23...	0910	ENVIRONMENTAL	11.8	15.5	761	1.5	73	7.2	100	6.8	<.020	
DEC 13...	0915	ENVIRONMENTAL	4.8	11.5	754	2.1	68	8.9	99	6.3	<.020	
JAN 10...	1015	ENVIRONMENTAL	5.5	10.0	744	3.1	58	8.3	100	6.9	<.020	
FEB 23...	1000	ENVIRONMENTAL	5.2	5.5	767	3.3	97	13.9	100	6.5	<.020	
MAR 21...	1015	ENVIRONMENTAL	6.8	7.5	759	.39	62	14.3	100	6.9	<.020	
APR 18...	1100	ENVIRONMENTAL	11.0	11.0	752	90	46	8.2	77	6.3	.021	
MAY 24...	1000	ENVIRONMENTAL	17.5	19.5	744	6.7	72	7.5	81	7.0	.044	
JUN 15...	1030	ENVIRONMENTAL	20.2	21.5	754	1.2	76	7.1	79	6.9	.051	
JUL 18...	1015	ENVIRONMENTAL	20.4	29.5	754	1.6	61	8.0	88	6.7	<.020	
AUG 24...	1015	ENVIRONMENTAL	19.4	26.5	754	.69	60	9.7	100	6.9	<.020	
SEP 19...	1030	ENVIRONMENTAL	16.4	21.0	750	.74	64	7.9	81	7.0	<.020	
		NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS TOTAL (MG/L AS P) (00666)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00671)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L) (T/DAY) (80154)	COLI- FORM, FECAL, SUS- PENDED (COL / 100 ML) (80155)	E. COLI WATER TOTAL UREASE (100 ML) (31625)	E. COLI WATER TOTAL UREASE (100 ML) (31633)
OCT 19...	<.010	.20	.26	<.050	.023	.012	<.010	4	.03	K22	K20	
NOV 23...	<.010	.31	.32	<.050	.083	.013	<.010	3	.01	K10	K11	
DEC 13...	<.010	.24	.24	<.050	.031	.012	<.010	3	.02	54	13	
JAN 10...	<.010	.18	.26	<.050	.023	.007	<.010	3	.03	K10	K3	
FEB 23...	<.010	.13	.16	<.050	.016	E.004	<.010	2	.02	K4	K5	
MAR 21...	<.010	.23	1.0	<.050	.103	.013	<.010	116	12	210	210	
APR 18...	<.010	.30	.50	<.050	.062	.015	<.010	88	21	K330	K340	
MAY 24...	<.010	.38	.47	.059	.036	.017	<.010	5	.09	42	54	
JUN 15...	<.010	.28	.36	.090	.034	.011	<.010	4	.01	180	200	
JUL 18...	<.010	.23	.24	.052	.028	.009	<.010	5	.02	75	69	
AUG 24...	<.010	.14	.22	<.050	.021	.006	<.010	3	.01	200	170	
SEP 19...	<.010	.16	.26	<.050	.024	.012	<.010	4	.01	170	120	

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